

SOLICITATION AMENDMENT

ARIZONA
DEPARTMENT OF CORRECTIONS
1601 WEST JEFFERSON AVE
PURCHASING, MAIL CODE 55302
PHOENIX, ARIZONA 85007

SOLICITATION NO. DC060275

AMENDMENT NO. 1

SOLICITATION DUE DATE: February 23, 2006

BUYER: Clay Dones

ASIGNED COPY OF THIS AMENDMENT MUST BE RECEIVED BY THE DEPARTMENT OF CORRECTIONS.

THIS SOLICITATION IS AMENDED AS FOLLOWS:

FOD NO. DC060275, Cathodic Protection for ASPC-Eyman

**The Due Date is hereby extended until February 28, 2006,
5:00 P.M., M.S.T.**

The following changes shall be made to the original solicitation:

1. Page 16, Specifications, Item 3.1.3:

From: Furnish Materials that consist of:

To: Furnish **and install the following** materials that consist of:

2. Page 16, Specifications, Item 3.1.3.5 (added):

Add: Rectifier Direct Current rated of 40 volts, 12 amps connected to a new 115volt-20 amp circuit installed in underground electrical grey PVC extended above ground with EMT wrapped at tank number 2.

3. Page 16, Specifications, Item 3.1.4.1 (added):

Add: Arizona Department Staff will provide utility locations adjacent to the tank and will do the "Blue Stake" work.

ALL OTHER PROVISIONS OF THE SOLICITATION SHALL REMAIN IN THEIR ENTIRETY.

Vendor hereby acknowledges receipt and understanding of above amendment.

The above referenced Solicitation Amendment is hereby executed this 17th day of February, 2006 at Phoenix, Arizona.

Signature

Date

Typed Name and Title

Denel Pickering, Chief Procurement Officer

Name of Company



STATE OF ARIZONA

REQUEST FOR QUOTATION

FAX ON DEMAND

QUOTATION NUMBER DC060275DUE DATE February 23, 2006 AT 5:00 P.M. M.S.T.**MAILING ADDRESS:**

ARIZONA DEPARTMENT OF CORRECTIONS
1601 W. JEFFERSON, MAIL CODE 55302
ATTN: CENTRAL PURCHASING UNIT
PHOENIX, ARIZONA 85007

HAND DELIVERY - OVERNIGHT MAIL

ARIZONA DEPARTMENT OF CORRECTIONS
1645 W. JEFFERSON
4th FLOOR, SUITE 4401
PHOENIX, ARIZONA 85007

An on-site has been scheduled. See Special Terms and Conditions, Page 1, Item 1.5 for details.

In accordance with A.R.S. § Title 41, Chapter 23 A.A.C.R2-7-336; quotations for the materials or services specified will be received by the Department of Corrections, at the above specified location, until the time and date cited.

Quotations must be in the actual possession of the Department of Corrections on or prior to the time and date, and at the location indicated above. Late quotations will not be considered.

All quotations must be completed in ink or typewritten, delivered to the above address. Quotations may also be returned via facsimile to 602-364-3780. Additional instructions for preparing a quotation are provided in Instruction for Quotations.

OFFERORS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE QUOTATION.

REQUESTING AGENCY:

Arizona Department of Corrections - ASPC-Eyman

MATERIAL, SERVICE AND/OR CONSTRUCTION:

Cathodic Protection

CONTRACT TYPE:

Firm Fixed Price

CONTRACT TERM:

Single Requirement

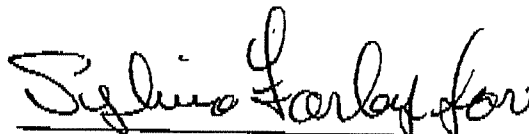
An Equal Employment Opportunity Agency


BUYER: Clay Dones(602) 542-1172

PHONE

February 7, 2006

DATE



DENEL PICKERING,

CHIEF PROCUREMENT OFFICER

STATE OF ARIZONA

Instructions For Quotations

1. **SUBMISSION:** Quotations shall be signed where applicable and received as designated on the cover page no later than as indicated.
2. **OPENING:** This is an informal Quotation which will not be read at a public opening; however, the information may be publicly reviewed after an award.
3. **STANDARD PROVISIONS:** The State of Arizona's Uniform General Terms and Conditions where applicable, are a part of this document as if fully set forth herein. Copies of these documents are available from the Department of Corrections, Purchasing Office.
4. **TAXES:** The State of Arizona is exempt from Federal Excise Tax, including Federal Transportation Tax, Sales Tax, if any, should be indicated as a separate item.
5. **QUOTE REJECTION:** The State reserves the right to reject any, or all, Quotations, combinations of items, or lot, and to waive defects or informalities.
6. **BRAND NAMES:** Any manufacturer's names, trade names, brand names or catalog numbers used in the specifications are for the purpose of describing and establishing the general quality level, design and performance desired. Such references are not intended to limit or restrict bidding by other vendors but are intended to approximate the quality design or performance which is desired. Any Quotation which proposes like a quality, design or performance will be considered. If the description of your offer differs in any way, you must give a complete detailed description of your Quotation including pictures and literature where applicable. Unless a specific exception is made, the assumption will be that you are bidding exactly as specified on the Request for Quotation.
7. **ERASURES:** Erasures, interlineations or other modifications must be initialed by the individual signing the Request for Quotation.
8. **UNIT PRICE:** In case of error in the extension prices in the Quotation, the unit price will govern. No Quotation shall be altered, amended or withdrawn after the specific date and time for receiving Quotations. Negligence by the Vendor in preparing the Quotation confers no right for the withdrawal of the Quotation after it has been opened.
9. **PAYMENT DISCOUNT:** Payment discount periods will be computed from the date of receipt of materials or services or correct invoice, whichever is later, to the date State's warrant is mailed. Unless freight and other charges are itemized, any discount provided will be taken on full amount of invoice. Payment discounts of thirty (30) calendar days or more will be deducted from the Quotation price in determining the low quote. However, the State shall be entitled to take advantage of any payment discount offered by the Vendor provided payment is made within the discount period.
10. **SOURCE SELECTION:** This procurement is restricted to small business. A small business is one that, including its affiliates is independently owned and operated, is not dominant in the type of business it conducts, and which employs fewer than 100 full time employees or which has gross receipts of less than \$4 million in its last fiscal year.
11. **SOURCE SELECTION CLARIFICATION:** Source Selection will apply only if Small Business Requirements under A.R.S. §41-2535, R2-7-335 are applicable for dollar amounts between \$1,000.00 and \$50,000.00

OFFER AND ACCEPTANCE**ARIZONA DEPARTMENT
OF CORRECTIONS****QUOTATION NO.**

DC060275

OFFER**SUBMIT THE ORIGINAL OF THIS FORM TO THE DEPARTMENT OF CORRECTIONS, 1601 WEST JEFFERSON, MAIL CODE 55302, PHOENIX, ARIZONA 85007.**

The Undersigned hereby offers and agrees to furnish the material, service or construction in compliance with all terms, conditions, specifications and amendments in the Solicitation and any written exceptions in the offer.

SALES TAX PERCENT: _____ %. (See Instructions for Quotations, Paragraph 4.)

Arizona Transaction (Sales) Privilege Tax

For clarification of this offer, contact:

License No.: _____

Name: _____

Federal Employer Identification

Phone: _____

No.: _____

Fax #: _____

Company Name

Signature of Person Authorized To Sign Offer

Address

Printed Name

City

State

Zip

Title

Small business certification: Vendor is _____ /is not _____ a small business (less than 100 employees _____ or has gross revenues of \$4 million or less _____.)

ACCEPTANCE OF OFFER

The Offer is hereby accepted.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the solicitation, including all terms, conditions, specifications, amendments, etc. and the Contractor's Offer as accepted by the State.

Cathodic Protection for ASPC - Eyman

This contract shall henceforth be referred to as Contract No. DC060275. The Contractor has been cautioned not to commence any billable work or to provide any material or service under this contract until Contractor has received purchase order or contract release document.

State of Arizona, Department of Corrections
Awarded this _____ Day of _____ 2006

Denel Pickering, Chief Procurement Officer

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275

PAGE NO. 1

1 SPECIAL TERMS AND CONDITIONS**1.1 Purpose**

1.1.1 Pursuant to provisions of the Arizona Procurement Code, A.R.S. § 41-2501, ext. seq., the State of Arizona intends to establish a contract for Cathodic Protection for ASPC-Eyman.

1.2 Questions, Clarifications or Interpretations

1.2.1 Any doubt as to the requirements of the Fax on Demand or any apparent omissions or discrepancies shall be presented to the Department of Corrections Purchasing Office in writing. The Department will then determine the appropriate action necessary, if any, and issue a written amendment to the Fax on Demand.

1.2.1.1 Any questions relating to the solicitation should be mailed or faxed to the following:

Address: Mailing Address: 1601 W. Jefferson, Mail
Code 55302, Phoenix, AZ 85007
Phone: 602-542-1172
Fax: 602-364-3780

1.3 Shipping Terms

1.3.1 Vendor is requested to submit their best price, Delivered, F.O.B. Destination, Freight Prepaid to the previously cited location(s).

1.4 Delivery Acceptance

1.4.1 Delivery shall be accomplished between the hours of 8:00 a.m. to 3:00 p.m., Monday through Friday only, except holidays.

1.5 On-Site Meeting

1.5.1 An On-Site Meeting will be held at 10:00 a.m. on February 16, 2006, at the Arizona State Prison Complex - Eyman. The purpose of this inspection is for the visual evaluation of the required bid task and familiarization with the facilities prior to submitting a bid. No further on-site inspection will be held at any other time.

Any bidder wishing to attend the inspection at the facility should contact Sasha Charvat at (520) 868-0201 ext. 2080 by no later than 3:00 p.m. on February 14, 2006.

Please be prepared to give the following information: Name of person(s) attending, social security number(s) and date(s) of birth. Anyone wishing to attend must get prior approved clearance before entering a state prison. Attenders **shall not** wear orange clothing while on state prison property.

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275

PAGE NO. 2

1.6 Brand Name

1.6.1 Reference made to items, identified by trade name, is intended to show kind and quality of products desired and is not intended to be restrictive or limit competition. The use of brand names or manufacturer's catalog references shall be construed as quality level, method and type of performance and does not indicate that item cited is mandatory. **Products substantially equivalent to those designated shall qualify for consideration.**

1.7 Descriptive Literature

1.7.1 Vendor shall identify items, with manufacturer's name and catalog/model number. In addition, vendor shall furnish descriptive literature, including technical specifications of items other than specified and must identify any variances to facilitate comparison of bids.

1.7.2 Failure to submit descriptive literature or to identify any variances may result in bid disqualification.

1.8 Warranty

1.8.1 Vendor shall submit complete warranty information. Information shall include repair/replacement policies and location of nearest factory authorized service center to the F.O.B. locations.

1.9 Manuals

1.9.1 Vendor shall supply maintenance and/or owner service manuals.

1.10 Installation

1.10.1 Installation shall include the vendor to set the equipment in place, secure to floor, if necessary; level; adjust; calibrate; make final hook-ups to electrical and gas connections, which will be brought to within three feet of the location of installation and start up of equipment.

1.11 Cancellation

1.11.1 The Department of Corrections reserves the right to cancel the whole or any part of this contract due to failure by the contractor to carry out any obligation, term or condition of this contract. The Department of Corrections will issue written notice to the contractor for acting or failing to act as in any of the following:

- ° The contractor provides material that does not meet the specifications of this contract;

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275

PAGE NO. 3

- The contractor fails to adequately perform the services set forth in the specifications of this contract;
- The contractor fails to complete the work required or to furnish the materials required within the time stipulated in the contract;
- The contractor fails to progress in the performance of this contract and/or gives the Department of Corrections reason to believe that the contractor will not or cannot perform to the requirements of the contract.

Upon receipt of the written notice of concern, the contractor shall have ten (10) days to provide a satisfactory response to the Department of Corrections. Failure on the part of the contractor to adequately address all issues of concern may result in the Department of Corrections resorting to any single or combination of the following remedies:

- Cancel any contract;
- Reserve all rights or claims of damage for breach or any covenants of the contract;
- Perform any test or analysis on materials for Compliance with the specifications of this contract. If the results of any test or analysis find a material non-compliant with the specifications, the actual expense of testing shall be borne by the contractor;

In case of default, the Department of Corrections reserves the right to purchase materials or to complete the required work in accordance with the Arizona Procurement Code. The Department of Corrections may recover any actual excess costs from the contractor or by:

- Deduction from unpaid balance;
- Collection against the bid and/or performance bond, or;
- Any combination of the above or any other remedies as provided by law.

1.12 CRIPA

1.12.1 The Arizona Department of Corrections (ADC) entered into an agreement with the Department of Justice regarding the matter of United States of America vs. Department of Corrections, et al. (Civil Action No. 97-476-PHX-ROS). The agreement affects all correctional and non correctional staff with female inmate contact, including contract providers.

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275**PAGE NO.** 4

- 1.12.1.1 The areas that impact the contract are: 1) backgrounds on existing staff; 2) stringent pre-employment screening practices for future staff; 3) pre-service and in-service training; 4) mandatory staff participation in sexual misconduct investigations; and 5) minimization of one on one situations where a female inmate and male staff are alone together.

THE AGREEMENT REQUIRES:

- 1.12.1.2 Background checks on all current non-correctional staff with female inmate contact. Any staff that has been convicted of or pled guilty to any felony charge from contact with a female inmate will be removed from their position.
- 1.12.1.3 All future staff with significant female inmate contact will require extensive pre-employment screening.
- 1.12.1.4 All ADC contractors will now be required to provide for each new applicant: 1) a complete background questionnaire to include drivers license number and record, past employment, past education, references, criminal arrest and criminal record; 2) be fingerprinted and screened by the Federal Bureau of Investigations; 3) NCIC/ACIC records check including law enforcement agency check or agencies where applicant has lived; 4) military discharge status; 5) investigation of whether applicant has ever worked in ADC prisons, and if so, whether they were the subject of investigations and allegations of inappropriate staff-inmate behavior; and, 6) tests to assess personality to be scored by a professional psychologist.
- 1.12.1.5 ADC will perform the background checks at no charge to the contractor, however, the contractor is responsible for the psychological testing, analysis, and personal interviews that may be required as a result of an appeal and submission of the scoring/report for review by the Department, prior to finalization of the hiring process.
- 1.12.1.6 All current and future contract staff will be required to view a video describing inappropriate staff-inmate behavior. There will be a requirement that all staff will acknowledge in writing viewing of the video. ADC will provide the video to contract providers.

SPECIAL TERMS AND CONDITIONS**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO. 5**

1.12.1.7 Pre-employment training will include at least eight (8) hours of specific topics relating to inappropriate staff-inmate behavior. ADC's video will be included in the curriculum. (Subject to clarification at a later date by the parties to the agreement, the training may be made part of the New Employee training to be provided within the first sixty (60) days of employment.)

1.12.1.8 ADC will provide the selected contractor with a copy of the lesson plan for their use. The plan will include the topics and procedural changes affecting staff working with female inmates. In-service training covering inappropriate staff-inmate behavior and viewing of video. The number of hours for in-service will be determined at a later date.

1.12.1.9 ADC will also provide a copy of the lesson plan for use by the contractor.

1.13 Serial Numbers

1.13.1 Offers must be for equipment on which the original manufacturer's serial number has not been altered in any way. Throughout the contract term, the Department of Corrections reserves the right to reject any altered equipment.

1.14 Safety Standards

1.14.1 All items supplied on this contract must comply with the current applicable Occupational Safety and Health Standards of the State of Arizona Industrial Commission, the National Electric Code and the National Fire Protection Association Standards.

SPECIAL TERMS AND CONDITIONS**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO. 6****1.15 Licenses**

1.15.1 Contractor shall maintain in current status all Federal, State and Local licenses and permits required for the operation of the business conducted by the contractor. Should the awarded contractor choose to sub-contract any portion of the job, the following requirements are necessary according to the Arizona Revised Statute § 32-1121, Professions and Occupations: This requirement applies to both in-state and out of state contractors.

- The awarded contractor must have an Arizona Contractors License if the cost of material and installation exceed \$ 750.00.

Contractors License No. _____

Type of License: _____

State of License: _____

- The sub-contractors license number and type must be identified in the contractor's solicitation submitted.

Sub-Contractors Name _____

Sub-Contractors License No. _____

Type of License: _____

State of License: _____

1.16 Insurance

1.16.1 Contractor and subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract, are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

1.16.2 The insurance requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The State of Arizona in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this contract by the Contractor, its agents, representatives, employees or subcontractors, and Contractor is free to purchase additional insurance.

SPECIAL TERMS AND CONDITIONS**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO. 7**

1.16.3 MINIMUM SCOPE AND LIMITS OF INSURANCE: Contractor shall provide coverage with limits of liability not less than those stated below.

1.16.4 Commercial General Liability - Occurrence Form. Policy shall include bodily injury, property damage, personal injury and broad form contractual liability coverage.

1.16.4.1	General Aggregate	\$2,000,000
1.16.4.2	Products - Completed Operations Aggregate	\$1,000,000
1.16.4.3	Personal and Advertising Injury	\$1,000,000
1.16.4.4	Blanket Contractual Liability - Written and Oral	\$1,000,000
1.16.4.5	Fire Legal Liability	\$ 50,000
1.16.4.6	Each Occurrence	\$1,000,000

1.16.4.7 The policy shall be endorsed to include the following additional insured language: "The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall be named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor".

1.16.4.8 Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

1.16.5 Automobile Liability - Bodily Injury and Property Damage for any owned, hired, and/or non-owned vehicles used in the performance of this Contract.

1.16.5.1 Combined Single Limit (CSL) \$1,000,000

1.16.5.2 The policy shall be endorsed to include the following additional insured language: "The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall be named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor, involving automobiles owned, leased, hired or borrowed by the Contractor".

1.16.6 Worker's Compensation and Employers' Liability

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275

PAGE NO. 8

1.16.6.1	Workers' Compensation	Statutory
1.16.6.2	Employers' Liability:	
1.16.6.3	Each Accident	\$ 500,000
1.16.6.4	Disease - Each Employee	\$ 500,000
1.16.6.5	Disease - Policy Limit	\$1,000,000

1.16.6.6 Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

1.16.6.7 This requirement shall not apply to: Separately, each contractor or subcontractor exempt under A.R.S. 23-901, and when such contractor or subcontractor executes the appropriate waiver (Sole Proprietor/Independent Contractor) form.

1.16.7 Professional Liability (Errors and Omissions Liability)

1.16.7.1	Each Claim	\$1,000,000
1.16.7.2	Annual Aggregate	\$2,000,000

1.16.7.3 In the event that the professional liability insurance required by this Contract is written on a claims-made basis, Contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Contract is completed.

1.16.7.4 Policy shall contain a waiver of subrogation against the State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

1.16.7.5 The policy shall cover professional misconduct or lack of ordinary skill for those positions defined in the Scope of Work of this contract.

1.16.8 ADDITIONAL INSURANCE REQUIREMENTS: The policies shall include, or be endorsed to include, the following provisions:

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275

PAGE NO. 9

- 1.16.8.1 The State of Arizona, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees wherever additional insured status is required such additional insured shall be covered to the full limits of liability purchased by the Contractor, even if those limits of liability are in excess of those required by this Contract.
- 1.16.8.2 The Contractor's insurance coverage shall be primary insurance with respect to all other available sources.
- 1.16.8.3 Coverage provided by the Contractor shall not be limited to the liability assumed under the indemnification provisions of this Contract.
- 1.16.9 **NOTICE OF CANCELLATION:** Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty (30) days prior written notice has been given to the State of Arizona. Such notice shall be sent directly to (State of Arizona Department of Corrections, 1601 West Jefferson Street, M/C 55302, Phoenix, AZ 85007-3002 and shall be sent by certified mail, return receipt requested.
- 1.16.10 **ACCEPTABILITY OF INSURERS:** Insurance is to be placed with duly licensed or approved non-admitted insurers in the state of Arizona with an "A.M. Best" rating of not less than A- VII. The State of Arizona in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.
- 1.16.11 **VERIFICATION OF COVERAGE:** Contractor shall furnish the State of Arizona with certificates of insurance (ACORD form or equivalent approved by the State of Arizona) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.
- 1.16.12 All certificates and endorsements are to be received and approved by the State of Arizona before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract.

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275**PAGE NO.** 10

1.16.13 All certificates required by this Contract shall be sent directly to State of Arizona Department of Corrections, 1601 West Jefferson Street, M/C 55302, Phoenix, AZ 85007-3002. The State of Arizona project/contract number and project description shall be noted on the certificate of insurance. The State of Arizona reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time. Do not send certificates of insurance to the state of Arizona's Risk Management section.

1.16.14 **SUBCONTRACTORS:** Contractors' certificate(s) shall include all subcontractors as insureds under its policies or Contractor shall furnish to the State of Arizona separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum requirements identified above.

1.16.15 **APPROVAL:** Any modification or variation from the insurance requirements in this Contract shall be made by the Department of Administration, Risk Management Section, whose decision shall be final. Such action will not require a formal Contract amendment, but may be made by administrative action.

1.16.16 **EXCEPTIONS:** In the event the Contractor or sub-contractor(s) is/are a public entity, then the Insurance Requirements shall not apply. Such public entity shall provide a Certificate of Self-Insurance. If the contractor or sub-contractor(s) is/are a State of Arizona agency, board, commission, or university, none of the above shall apply.

1.17 Security

1.17.1 Vendor shall, forty-eight hours prior to starting his work, supply the full names, dates of birth and social security numbers for all his employees and subcontractor employees who may be working at the job-site, to Sasha Charvat at (520) 868-0201 ext. 2080, for advance security clearance.

1.17.2 Vendor will be required to perform all work in conjunction with the Security Unit while on the institutional grounds and shall be responsible for all personnel employed by their firm to ensure that institutional dress codes and overall policies are followed.

SPECIAL TERMS AND CONDITIONS**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO. 11****1.18 Notice Warning**

1.18.1 Any person who takes into or out of or attempts to take into or out of a correctional facility or the grounds belonging to or adjacent to a correctional facility, any item not specifically authorized by the correctional facility, shall be prosecuted under the provisions of the Arizona Revised Statutes. All persons, including employee and visitors, entering upon these confines are subject to routine searches of their persons, vehicles, property or packages.

Definition A.R.S. § 13-2501:

1.19 Contraband

1.19.1 Contraband means any dangerous drug, narcotic drug, intoxicating liquor of any kind, deadly weapon, dangerous instrument, explosive or any other article whose use of or possession would endanger the safety, security or preservation of order in a correctional facility or any person therein. (Any other article includes any substance which could cause abnormal behavior, i.e., marijuana, nonprescription medication, etc.)

Promoting prison contraband A.R.S. § 13-2505:

A person, not otherwise authorized by law, commits promoting prison contraband:

- ° By knowingly taking contraband into a correctional facility or the grounds of such a facility; or
- ° By knowingly conveying contraband to any persons confined in a correctional facility; or
- ° By knowingly making, obtaining, or possessing contraband while being confined in a correctional facility.

Promoting Prison Contraband is a Class 5 felony.

1.20 Rejection of Bids

1.20.1 The Arizona Department of Corrections, at its discretion may reject any and/or all bids.

1.21 Evaluation

1.21.1 This contract shall be awarded to the lowest, responsive, responsible vendor meeting the minimum specifications and requirements set forth in this Request for Quotation, including criteria to determine acceptability such as inspection, testing, quality, workmanship, delivery and suitability for the specified purpose.

SPECIAL TERMS AND CONDITIONS**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO. 12****1.22 Delivery, Start and Completion**

1.22.1 Vendor is requested to indicate their best delivery time after receipt of a Purchase Order, _____ days.

1.22.2 Vendor is requested to indicate start and completion of installation after delivery.

Number of days to begin _____.

Number of days to complete _____.

1.23 Bidding Conditions

1.23.1 At the time of the opening of the bid, each bidder shall be presumed to have inspected the site, and to have read and be thoroughly familiar with the contract documents, including all addendums. The bidder shall satisfy himself as to the nature and locations of the work and the general and local conditions. The bidder shall gain full knowledge as to the employment of labor, transportation, disposal handling and storage material, availability of water, electric power and all other facilities in the area that will have a bearing on the performance of this work and the contract for which he submits his bid.

1.24 Safety Requirements

1.24.1 Contractor shall provide and maintain all necessary barricades and other reasonable safeguards required to ensure the safety of personnel, inmates and pedestrians.

1.24.2 Contractor shall provide proper means of ventilating occupied area when installing or working with noxious materials, so as not to cause inconvenience or conditions hazardous to the health of personnel or inmates.

1.24.3 Contractor shall provide protection for the existing building(s). Damage to any part of the existing building(s) due to negligence on the part of the contractor or his workmen shall be remedied by the contractor to the full satisfaction of the owner.

1.25 Final Inspection

1.25.1 There will be a final inspection by a representative from the Arizona State Prison Complex - Eyman, prior to acceptance of work and final payment.

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275**PAGE NO. 13****1.26 Housekeeping**

1.26.1 During the course of the proposed project, the contractor shall be responsible for properly organizing all activities on the job site to the extent that good housekeeping is practiced at all times as the job progresses, work shall be kept in a neat and orderly fashion.

1.26.2 A safe access way to all work areas shall be maintained at all times. Materials, tools and equipment must be stored in a safe and secure manner to prevent harm or damage to persons or property. Open containers must be resealed and transported off premises. Used rags and other debris shall be removed off the premises and all items disposed of properly.

1.27 Rules and Regulations

1.27.1 Attention of the bidders is called to the requirements of the document Rules and Regulations for Non-Employees of the Department of Corrections in an Arizona State Prison Complex, which are bound herein and which shall be adhered to in all respects.

1.27.2 The last page of the Rules and Regulations document requires a signature, acknowledging having read and understood both of the above mentioned documents. This document shall be furnished to the successful vendor.

1.27.3 Should the owner require signatures of other parties such as subcontractor or persons directly or indirectly employed by the contractor, it shall be the contractor's responsibility to obtain such signatures. The signed document must be submitted within ten (10) days of notification of intent to award.

1.28 Warranty**1.28.1 Vendor warrants:**

1.28.1.1 That all services performed hereunder shall conform to the requirements of this contract.

1.28.1.2 That all items furnished hereunder shall conform to the requirements of this contract and shall be free from defects in design materials and workmanship. The warranty period on workmanship and materials shall be a minimum of ninety (90) days from date of installation. Parts which in the normal trade practice carry a warranty in excess of ninety (90) days, shall be subject to the normal warranty.

1.28.1.3 The vendor agrees that he will, upon presentation, exchange for credit or like items all defective parts.

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275**PAGE NO.** 14**1.29 Award**

1.29.1 It is the intention of the Department of Corrections to award a single contract for all of the proposed work.

1.30 Federal Immigration and Nationality Act

1.30.1 By submission of the offer, the offeror warrants that both it and all proposed subcontractors are and shall remain in compliance with all federal, state and local immigration laws and regulations relating to the immigration status of their employees. The State may, at its sole discretion require evidence of compliance during the evaluation process. Should the State request evidence of compliance, the offeror shall have five (5) days from receipt of the request to supply adequate information. Failure to comply with this instruction or failure to supply requested information within the timeframe specified, shall result in the offer not being considered for contract award.

1.30.2 The contractor shall comply with all federal, state and local immigration laws and regulations relating to the immigration status of their employees during the term of the contract. Further, the contractor shall flow down this requirement to all subcontractors utilized during the term of the contract. The State shall retain the right to perform random audits of contractor and subcontractor records or to inspect papers of any employee thereof to ensure compliance. Should the State determine that the contractor and/or any subcontractors be found noncompliant, the State may pursue all remedies allowed by law, including, but not limited to; suspension of work, termination of the contract for default and suspension and/or debarment of the contractor.

1.31 Product Discontinuance

1.31.1 In the event that a product or model is discontinued by the manufacturer, the Department at its sole discretion, may allow the contractor to provide a substitute for the discontinued item. The contractor shall request permission to substitute a new product or model and provide the following:

1.31.2 A formal announcement from the manufacturer that the product or model has been discontinued.

1.31.3 Documentation from the manufacturer that names the replacement product or model.

1.31.4 Documentation that provides clear and convincing evidence that the replacement meets or exceeds all specifications required by the original solicitation.

1.31.5 Documentation that provides clear and convincing evidence that the replacement will be compatible with all the functions or uses of the discontinued product or model.

1.31.6 Documentation confirming that the price for the replacement is the same as or less than the discontinued product or model.

SPECIAL TERMS AND CONDITIONS

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275**PAGE NO.** 15**1.32 Millennium Compliance****1.32.1 Hardware, Software, or Firmware Contracts:**

1.32.1.1 Notwithstanding any other warranty or disclaimer of warranty in this contract, the contractor warrants that each hardware, software, and firmware product delivered under this contract shall be able to accurately process date/time data (including but not limited to calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology utilized by the State in combination with the information technology being acquired under this contract properly exchanges date/time data with it. If this contract requires that the information technology products being acquired perform as a system, or that the information technology products being acquired perform as a system in combination with other State information technology, then this warranty shall apply to the acquired products as a system. This warranty shall survive the expiration or termination of this contract. The remedies available to the State for breach of this warranty shall include, but shall not be limited to, repair and replacement of the information technology products delivered under this contract. In addition, the defense of force majeure shall not apply to the failure of the contractor to perform any specification requirements as a result of any date-related data Year 2000 issues.

1.32.2 Contracts not involving Hardware, Software or Firmware:

1.32.2.1 Notwithstanding any other warranty or disclaimer of warranty in this contract, the contractor warrants that all products delivered and all services rendered under this contract shall comply in all respects to performance and delivery requirements of the specifications and shall not adversely affected by any date-related data Year 2000 issues. This warranty shall survive the expiration or termination of this contract. In addition, the defense of force majeure shall not apply of the contractor's failure to perform specification requirements as a result of any date-related data Year 2000 issues.

SPECIFICATIONS**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO. 16****2 TASK**

- 2.1 Vendor is requested to provide pricing for the herein specified service, **F.O.B. Destination Freight Prepaid, Cathodic Protection** to the following Arizona Department of Corrections locations:

Arizona State Prison Complex - Eyman
4374 East Butte Avenue
Florence, AZ 85607

3 GENERAL SPECIFICATIONS/REQUIREMENTS

- 3.1 The work performed herein shall be performed in accordance with the requirements listed in Attachment A; Synopsis follows:

3.1.1 Division 13 -Special Construction, Section 13111A, Cathodic Protection System.

3.1.2 Vendor shall furnish labor and equipment to install anodes to be placed in 8 inch by 10 foot deep holes. Evenly distributed around outside of tank #2 bottom.

3.1.3 Furnish materials that consist of:

3.1.3.1 Graphite Anodes, 3 x 60 inch, wax treated with 10 foot #8 cable. (6 ea.)

3.1.3.2 600 pounds of Coke Breeze Fill, or equal.

3.1.3.3 Epoxy Splice kits (6 ea.)

3.1.3.4 #4 HMWPE Header cable as required

3.1.4 After system installation is completed, energize system, test and prepare final report on system operation.

- 3.2 This Solicitation No. DC060275 will be the only formal contract that will be issued. The Arizona Department of Corrections will not enter into or sign any other form of contract or agreement(s) from the vendor of award.

PRICE SHEET**SOLICITATION NO. DC060275****ARIZONA****DEPARTMENT OF CORRECTIONS****PAGE NO. 17****4 PRICING**

- 4.1 Pricing for the herein specified service of Cathodic Protection shall be submitted on an all inclusive basis and shall include all labor, materials, labor rate, labor benefits, payroll burden, insurances, workmen's compensation fee, profit, overhead, sales tax on parts, and all other related cost factors. The Arizona Department of Corrections shall not reimburse any other item other than the all inclusive price in accordance with the scope of work and the specifications herein for the lump sum of :

(Written Amount)

Dollars (\$) _____

NOTICE:

The vendor acknowledges that all products delivered and all services rendered under any contract resulting from this solicitation shall comply in all respects to performance and delivery requirements of the specifications and shall not be adversely affected by any date-related Year 2000 issues. The vendor further acknowledges that the defense of force majeure shall not apply to its failure to perform specification requirements as a result of any date-related data Year 2000 issues.

SALES TAX PERCENT: _____ %, (See Uniform Instructions to Offerors for Formal Solicitation, Paragraph 3.10.)

PROMPT PAYMENT DISCOUNT: The price(s) quoted herein can be discounted by: _____ %, if payment is made within _____ days.

PLEASE CHECK THE APPROPRIATE SELECTION BELOW THAT APPLIES TO YOUR COMPANY:

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> 0. Non-Small/Non-Minority/Non-Disabled | <input type="checkbox"/> 1. Small Business | <input type="checkbox"/> 2. Minority Owned Business | <input type="checkbox"/> 3. Women Owned Business |
| <input type="checkbox"/> 4. Owned By Disabled Individual | <input type="checkbox"/> 5. Small Business/Minority Owned | <input type="checkbox"/> 6. Small Business/Women Owned | <input type="checkbox"/> 7. Small Business/Disabled Owner |
| <input type="checkbox"/> 8. Minority-Women Owned Business | <input type="checkbox"/> 9. Disabled-Minority Owner Business | <input type="checkbox"/> 10. Disabled-Women Owned Business | <input type="checkbox"/> 11. Small Business/Minority-Women Owned |
| <input type="checkbox"/> 12. Small Business/Disabled-Minority Owned | <input type="checkbox"/> 13. Small Business/Disabled-Minority-Women Owned | | |



CERTIFICATE OF INSURANCE

SOLICITATION NO. DC060275

**ARIZONA STATE
DEPARTMENT OF CORRECTIONS
1601 W. Jefferson
MC #55302
PHOENIX, ARIZONA 85004**

VENDOR

**COMPANY
LETTER**

**COMPANIES AFFORDING
COVERAGE**

**Current
A.M. Best
Rating**

NAME AND ADDRESS OF INSURANCE AGENCY:

A

B

NAME AND ADDRESS OF INSURED:

C

D

This is to Certify that the Policies of Insurance listed below have been issued to the Insured Named above for the Policy period indicated.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YR)	POLICY EXPIRATION DATE (MM/DD/YR)	LIMITS (.000)
	GENERAL LIABILITY <input checked="" type="checkbox"/> Commercial General Liability <input checked="" type="checkbox"/> Occurrence- Claims Made <input checked="" type="checkbox"/> Owner's & Contractors Prol. <input checked="" type="checkbox"/> Per Project Product/Completed Operations				Commercial Aggregate Products-Comp/OP AGG. \$ _____ Personal & ADV. Injury \$ _____ Each Occurrence \$ _____ Fire Damage (Any One Fire) \$ _____ Med. Expenses (Any One Person) \$ _____
	AUTOMOBILE LIABILITY Any Auto All Owned Autos All Owned Autos (Other than Priv. Pass) Scheduled Autos Hired Autos Non-Owned Autos Garage Liability				Bodily Injury (Per Person) \$ _____ Bodily Injury (Per Accident) \$ _____ Property Damage \$ _____
	PROFESSIONAL LIABILITY <input type="checkbox"/> Type <input type="checkbox"/> Claims Made <input type="checkbox"/> Occurrence				Each Occurrence Aggregate \$ _____ \$ _____
	EXCESS LIABILITY Umbrella Form Other than Umbrella Form				Each Occurrence Aggregate \$ _____ \$ _____
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				Statutory Limits Each Accident \$ _____ Disease-Policy Limit \$ _____ Disease-Each Employee \$ _____
	Builders Risk				
	Other				

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS:

STATE OF ARIZONA AND THE DEPARTMENT NAMED ABOVE ARE ADDED AS ADDITIONAL INSURERS AS REQUIRED BY STATUTE, CONTRACT, PURCHASE ORDER OR OTHERWISE REQUESTED. IT IS AGREED THAT ANY INSURANCE AVAILABLE TO THE NAMED INSURED SHALL BE PRIMARY OF OTHER SOURCES THAT MAY BE AVAILABLE.

IT IS FURTHER AGREED THAT NO POLICY SHALL EXPIRE, BE CANCELED OR MATERIALLY CHANGED TO AFFECT THE COVERAGE AVAILABLE TO THE STATE WITHOUT THIRTY (30) DAYS WRITTEN NOTICE TO THE STATE. THIS CERTIFICATE IS NOT VALID UNLESS COUNTERSIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE INSURANCE COMPANY.

CERTIFICATE HOLDER/ADDITIONAL INSURED
 Arizona Department of Corrections
 1601 W. Jefferson, M/C 55302
 Phoenix, AZ 85007

AUTHORIZED REPRESENTATIVE OF THE INSURANCE COMPANY

SIGNATURE _____
 DATE _____

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO.1****SECTION TABLE OF CONTENTS
DIVISION 13 - SPECIAL CONSTRUCTION
SECTION 13111A****CATHODIC PROTECTION SYSTEM (STEEL WATER TANKS)****PART 1 GENERAL**

- 1.1 REFERENCES
- 1.2 SUBMITTALS
- 1.3 GENERAL REQUIREMENTS
 - 1.3.1 Contractor's Modifications
 - 1.3.2 Services of "Corrosion Expert"
 - 1.3.3 Verification of Site Conditions
 - 1.3.4 Spare Parts

PART 2 PRODUCTS

- 2.1 IMPRESSED CURRENT ANODES
 - 2.1.1 High Silicon Cast Iron Anodes
 - 2.1.1.1 Chemical Composition (Nominal)
 - 2.1.1.2 Electrical Resistivity
 - 2.1.1.3 Physical Properties (Nominal)
 - 2.1.2 Mixed Metal Oxide Anodes
 - 2.1.2.1 Conductive Material
 - 2.1.2.2 Anode Life Test
 - 2.1.2.3 Anode Connecting Cables
 - 2.1.3 Precious Metal Anodes
 - 2.1.3.1 Selection Requirements
 - 2.1.3.2 Anode Life Test
 - 2.1.4 Anode Connecting Cables
- 2.2 RECTIFIERS AND ASSOCIATED EQUIPMENT
 - 2.2.1 Rectifier Unit
 - 2.2.1.1 Transformer
 - 2.2.1.2 Rectifying Elements
 - 2.2.1.3 Meters
 - 2.2.1.4 Circuit Breaker
 - 2.2.1.5 Fuses
 - 2.2.1.6 Automatic Cathodic Protection Control
 - 2.2.1.7 Tank To Water Potential Meter
 - 2.2.2 Cabinet
 - 2.2.2.1 Wiring Diagram
 - 2.2.2.2 Grounding
 - 2.2.2.3 Resistance to Ground
 - 2.2.2.4 Cabinet Paint System
 - 2.2.3 Wiring
 - 2.2.4 Oil Immersed Enclosures
- 2.3 MISCELLANEOUS MATERIALS
 - 2.3.1 Reference Electrodes
 - 2.3.2 Electrical Wire and Associated Materials
 - 2.3.2.1 Anode Connecting Wire
 - 2.3.2.2 Anode Header Cable
 - 2.3.2.3 Reference Electrode Wire
 - 2.3.3 Conduit
 - 2.3.4 Test Boxes and Junction Boxes
 - 2.3.5 Polyethylene Insulation
 - 2.3.5.1 High Molecular Weight Polyethylene
 - 2.3.5.2 High Density Polyethylene
 - 2.3.6 Pressure-Sensitive Vinyl Tape

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO.2****PART 3 EXECUTION**

- 3.1 ANODES
 - 3.1.1 Anode Installation
 - 3.1.2 Anode Connections
- 3.2 RECTIFIERS
 - 3.2.1 Rectifier and Control Installation
 - 3.2.2 Rectifier Grounding
- 3.3 PERMANENT REFERENCE ELECTRODES
 - 3.3.1 Calibration
 - 3.3.2 Installation
- 3.4 CRITERIA OF PROTECTION
 - 3.4.1 Minimum
 - 3.4.2 Maximum
- 3.5 TESTING, ADJUSTING, AND PLACING IN SERVICE
 - 3.5.1 Electrode Potential Measurements
 - 3.5.1.1 Tank-to-Water Potential Measurements
 - 3.5.1.2 Reference Electrode Calibration
 - 3.5.1.3 Test Measurement Recording
 - 3.5.2 Adjusting
 - 3.5.3 Placing in Service
- 3.6 TRAINING

-- End of Section Table of Contents --

=====

PART 1 - GENERAL**1.1 REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI C135.30 (1988) Zinc-Coated Ferrous Ground Rods for Overhead or Underground Line Construction

ASTM INTERNATIONAL (ASTM)

ASTM D 1248 (2004) Polyethylene Plastics Extrusion Materials for Wire and Cable

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE Std 81 (1983) Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of Measurements a Ground System (Part 1) Normal

NACE INTERNATIONAL (NACE)

NACE RP0398 (2001) Impressed Current Cathodic Protection of Internal Submerged Surfaces of Carbon Steel Tanks

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO.3****NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)**

NEMA FU 1 (2002) Low Voltage Cartridge Fuses
NEMA TC 2 (2003) Electrical Polyvinyl Chloride (PVC)
Tubing and Conduit

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70 (2005) National Electrical Code

UNDERWRITERS LABORATORIES (UL)

UL 467 (2004) Grounding and Bonding Equipment
UL 506 (2000; Rev thru Feb 2004) Specialty Transformers
UL 510 (2005) Polyvinyl Chloride, Polyethylene,
and Rubber Insulating Tape
UL 514A (2004) Metallic Outlet Boxes
UL 6 (2000; Rev thru May 2003) Rigid Metal
=====

CONDUIT**1.2 SUBMITTALS****01330 SUBMITTAL PROCEDURES:****Shop Drawings****Detail Drawings**

Within 45 days after the date of award of the contract, and before commencement of any work, six [6] copies of detail drawings consisting of a complete list of equipment and materials including manufacturer's descriptive and technical literature, catalog cuts, and installation instructions. The drawings shall provide tank dimensions and show anode arrangement for both elevated and

sectional views of the tank, anode size and number, anode material, anode-suspension details, conduit size, wire size, rectifier size and location, handhole details, wiring diagram, and any other pertinent information considered necessary for the proper installation and performance of the system. Shop drawings shall also contain complete wiring and schematic diagrams and any other details required to demonstrate that the system has been coordinated and will function as a unit. The list of materials and equipment shall include catalog cuts diagrams, and other descriptive data required by the Contracting Officer for the following list of material. Partial lists submitted from time to time will not be allowed.

- a. Water resistivity and water analysis.
- b. Conductors.
- c. Anodes.
- d. Coating material in areas where welding and other work is accomplished.
- e. Insulated resistance wire.

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS****PAGE NO.4**

- f. Layout of anodes in tanks, test stations and isolation points, and grounding.
 - g. Special details.
 - h. Certified experience data of installing firm.
 - i. Exothermic weld equipment and material.
 - j. Test station.
 - k. Welding method for electrical connections and steel ring connections.
- 1. Calculations for
 - (1) Total current required for system.
 - (2) Life of the anodes.
 - (3) Anode geometry (showing areas of coverage).

All detail drawings shall be submitted at one time, as a single submittal, in order to demonstrate that the items have been properly coordinated and will function properly as a unit. A notation shall be made on each shop drawing submitted as to the item's specific use, either by a particular type number referenced on the drawings or in the specifications, or by a description of its specific location.

Contractor's Modifications

Six [6] copies of detail drawings, showing proposed changes in location and scope or performance, indicating any variations from, additions to, or clarifications of contract drawings. The drawings shall show proposed changes in anode arrangement, anode size and number, anode materials and layout details, conduit size, wire size, mounting details, wiring diagram, method for electrically isolating each pipe, and any other pertinent information to the proper installation and performance of the system.

Product Data**Miscellaneous Materials
Equipment**

Within 30 days after receipt of notice to proceed, an itemized list of equipment and materials including item number, quantity, and manufacturer of each item. The list shall be accompanied by a description of procedures for each type of testing and adjustment, including testing of coating for thickness and holidays. Installation of materials and equipment shall not commence until this submittal is approved.

Spare Parts

Spare parts data for each different item of material and equipment specified.

Test Reports**Testing, Adjusting, and Placing in Service**

Test reports in booklet form tabulating all field tests and measurements performed, upon completion and testing of the installed system and including potential survey, final system test verifying protection, and holiday coating test. Each test report shall indicate the final position of controls. A certified test report showing that the connecting method has passed a 120-day laboratory test without failure at the place of connection, wherein the anode is subjected to maximum recommended current output while immersed in a 3 percent sodium chloride solution.

Contractor's Modifications

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS****PAGE NO.5**

Final report including measurements throughout the tank area, indicating that the addition of anodes corrected the conditions which made the additional anodes necessary. The following are required: Installation and testing procedures, anode number, life, and parameters to achieve protective potential.

Certificates**Cathodic Protection System**

Proof that the materials and equipment furnished under this section conform to the specified requirements contained in the referenced standards or publications. The label or listing by the specified agency will be acceptable evidence of such compliance.

Services of "Corrosion Expert"**Evidence of qualifications of the "corrosion expert."**

- (a) The "corrosion expert's" name and qualifications shall be certified in writing to the Contracting Officer prior to the start of construction.
- (b) Certification shall be submitted giving the name of the firm, the number of years of experience, and a list of not less than five (5) of the firm's installations three (3) or more years old that have been tested and found satisfactory.

Operation and Maintenance Data**Cathodic Protection System**

Six copies of operating manual outlining the step-by-step procedures required for system startup, operation, adjustment of current flow, and shutdown. The manuals shall include the manufacturer's name, model number, service manual, parts list, and brief description of all equipment and their basic operating features. Six copies of maintenance manual listing routine maintenance procedures, recommendation for maintenance testing, possible breakdowns and repairs, and troubleshooting guides. The manuals shall include single line diagrams for the system as installed, instructions in making tank-to-reference cell potential measurements, and describe the frequency of monitoring. The instructions shall include precautions to ensure safe conditions during repair of system.

Training

The proposed Training Course Curriculum (including topics and dates of discussion) indicating that all of the items contained in the operating and maintenance instructions, as well as demonstrations of routine maintenance operations, including testing procedures included in the maintenance instructions, are to be covered.

1.3 GENERAL REQUIREMENTS

The Contractor shall provide and install all equipment wiring, and wiring devices, necessary to produce a continuous flow of direct current from electrodes in the electrolyte to the metal tank surfaces; and placing the cathodic protection system in operable status.

- a. The Contractor shall install complete cathodic protection to prevent corrosion on the interior submerged surface of the water tank. The Contractor's installation shall meet the criteria and protection outlined in paragraph CRITERIA OF PROTECTION for a 20 year life.

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO.6**

b. The purpose of the system is to adequately and efficiently protect the surfaces of the metal against corrosion where the surfaces are in contact with water; this is in addition to the protective coating on the tank. The contract drawings indicate the location and size of the tank. The design of this system is based on an impressed current system.

c. The Contractor may modify the cathodic protection system after site verification and analysis if the proposed modification will provide equal or better overall system performance. This modification must be fully described and submitted by the Contractor and approved by the Contracting Officer. Modifications or additional anodes shall be at no additional cost to the Government. Any modification shall incorporate all requirements of this specification.

d. The intent of this specification is to use this impressed current system as described with anodes as are found necessary in calculation and submitted data to meet this specification. Anodes shall be installed in sufficient number and of the required type, size and spacing to obtain a uniform current distribution of at least 1 milliamperes per square foot to all submerged surfaces in the tank when filled with water to the over-flow level. The anodes shall be suspended from the roof steel with hangers or supporting cables that are electrically isolated from both the metal roof and the water electrolyte. The anodes shall be placed with the roof door midway between two adjacent anodes and hung clear of contact with such items as ladders, heater pipes, and stay rods.

1.3.1 Contractor's Modifications

The Contractor may modify the cathodic protection system after review of the project, site verification and analysis if the proposed modifications include impressed current anodes and rectifiers and will provide better overall system performance. The modifications shall be fully described, shall be approved by the Contracting Officer and shall meet the following criteria. The proposed system shall achieve a minimum "Instant Off" potential of minus 850 millivolts with reference to a saturated copper-copper sulfate reference cell on the tank components. The Contractor shall take measurements and the current and voltage of the rectifier shall be adjusted as required to produce a minimum of minus 850 millivolts "Instant Off" potential between the structure being tested and the reference cell. This potential shall be obtained over 95 percent of the metallic area without the "Instant Off" potential exceeding 1100 millivolts.

1.3.2 Services of "Corrosion Expert"

The Contractor shall obtain the services of a "corrosion expert" to supervise and inspect the installation and performance of the cathodic protection system. "Corrosion expert" refers to a person, who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by professional education and related practical experience, is qualified to engage in the practice of corrosion control on steel water tanks. Such a person must be accredited or certified by the National Association of Corrosion Engineers (NACE) as a NACE Accredited Corrosion Specialist or a NACE certified Cathodic Protection (CP) Specialist or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on steel water tanks, if such certification or licensing includes 5 years experience in corrosion control on steel water tanks of the type under this contract. The "corrosion expert" shall ensure that the cathodic protection system is installed, tested, and placed into service in accordance with the requirements specified; and shall also design, make calculations, and assure quality control as required.

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS****PAGE NO.7****1.3.3 Verification of Site Conditions**

The Contractor shall coordinate and properly relate this work to the work of all trades. The general locations of the structures to receive protection are shown. The Contractor shall visit the premises and become familiar with all details of the work and working conditions, shall verify existing conditions in the field, determine the exact locations of structures to be protected, and advise the Contracting Officer of any discrepancy before performing any work. The Contractor shall take resistivity measurement of the water and analysis of the water and provide this data with detail drawings of the system for approval.

1.3.4 Spare Parts

The Contractor shall submit spare parts data for each different item of material and equipment specified, after approval of the detail drawings and not later than one month after substantial completion but prior to the date final completion. The data shall include a complete list of parts, special tools, and supplies with current unit prices and source of supply. One spare anode of each type shall be furnished

PART 2 PRODUCTS**2.1 IMPRESSED CURRENT ANODES****2.1.1 High Silicon Cast Iron Anodes**

NOTE: High silicon cast iron anodes are rugged, long lasting, and commonly used in icing and non-icing climates. The anodes are less vulnerable to damage and loss than other anodes where ice is heavy and the tank level fluctuates over a wide range. They are generally classified as relatively non-sacrificial having a consumption rate between 0.2 to 0.5 kg per ampere year (0.5 to 1.0 pounds per ampere year) in most fresh waters.

Cast iron anodes shall be of the size indicated and shall conform to the following requirements:

2.1.1.1 Chemical Composition (Nominal)

<u>Percent by Weight</u>		
<u>Element</u>	<u>Grade 1</u>	<u>Grade 2</u>
Silicon	14.20-14.75	14.20-14.75
Manganese	1.50 max.	1.50 max.
Carbon	0.70-1.10	0.75-1.15
Chromium	-----	3.25-5.00
Iron	Balance	Balance

2.1.1.2 Electrical Resistivity

Electrical Resistivity shall be 72 microhm-centimeter at minus 7 degrees C 20 degrees F (maximum).

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS****PAGE NO.8****2.1.1.3 Physical Properties (Nominal)**

Tensile strength	103.4 MPa
Compressive strength	689.5 MPa
Brinell hardness	520
Density	7000 kilograms per cubic meter
Melting point	1260 degrees C
Coefficient of expansion from 0 to 100 degrees C	132 nanometer per degree C
Tensile strength	15,000 psi
Compressive strength	100,000 psi
Brinell hardness	520
Density	7.0 grams per cubic centimeter
Melting point	2300 degrees F
Coefficient of expansion from 32 to 212 degrees F	0.00000733 centimeter per degree F

2.1.2 Mixed Metal Oxide Anodes

Mixed metal oxide anodes shall be of the size indicated and shall conform to the following requirements.

2.1.2.1 Conductive Material

The electrically conductive coating shall contain a mixture consisting primarily of iridium, tantalum, and titanium oxides. The average composition is generally a 50/50 atomic percent mixture of iridium and titanium oxides, with a small amount of tantalum. The resistivity, as tested by the manufacturer, shall be no more than 0.002 ohm-centimeter, and the bond strength shall be greater than 50 MPa 7.25 ksi to guarantee the current capacity life and the quality of the conductive ceramic coating. The adhesion or bond strength shall be determined by epoxy bonding a 2.54 mm 0.1 inch diameter stud to the ceramic coating and measuring the load to failure (about 70 MPa 10.15 ksi) of either the epoxy or the interface between the coating and the substrate. The anode must be inert and the electrically conductive ceramic coating dimensionally stable. The ceramic coated anode shall be capable of sustaining a current density of 100 ampere per square meter 10.764 square feet in an oxygen generating electrolyte at 66 degrees C 150 degrees F for 20 years, to ensure the current capacity life. An accelerated current capacity life test shall be performed by the manufacturer on every lot of anode wire used to construct the anode as described. The mixed metal oxide coating shall be applied to the wire anode by a firm that is regularly engaged in and has a minimum 5 years experience in manufacturing and applying mixed metal oxide coating to titanium anode substrates. The mixed metal oxide shall be sintered to the titanium surface to remain tightly bound to the surface when bent 180 degrees onto itself.

2.1.2.2 Anode Life Test

The anode wire material shall sustain current densities of 100 ampere per square meter 10.764 square feet in an oxygen generating electrolyte for 20 years. The manufacturer shall certify that a representative sample taken from the same lot used to construct the anode, has been tested and meets the following criteria. The test cell sustains a current density of 10,000 ampere per square meter 10.764 square feet in a 15 weight percent sulfuric acid electrolyte at 66 degrees C 150 degrees F without an increase in anode to cathode potential of more than 1 volt. The cell containing the anode shall be powered with a constant current power supply for the 30 day test period. The representative sample shall be 125 mm 5 inch in length taken from the lot of wire that is to be used for the anode.

ATTACHMENT A

ARIZONA

DEPARTMENT OF CORRECTIONS

SOLICITATION NO. DC060275**PAGE NO.9****2.1.2.3 Anode Connecting Cables**

The connection between the anode rod or ribbon and the lead wire shall be made with a solid crimp couple with solder. The connection shall be sealed in cast epoxy.

2.1.3 Precious Metal Anodes (if used)**2.1.3.1 Selection Requirements**

Precious metal anodes shall be [solid] [composite] [wire] [rod] [expanded mesh] [ribbon] in form. Selection of the configuration should be left to the designer of the system. Long, continuous wire form lengths of precious metal anodes may have an attenuating effect. This can be overcome by using parallel feeder cable connected to segmented lengths of precious metal anodes at intervals. Such assemblies shall be factory assembled with factory sealed and tested electrical connections to the anode.

2.1.3.2 Anode Life Test

The anode wire material shall sustain current densities of 100 ampere per square meter 10.764 square feet in an oxygen generating electrolyte for 20 years. The manufacturer shall certify that a representative sample taken from the same lot used to construct the anode, has been tested and meets the following criteria. The test cell sustains a current density of 10,000 ampere per square meter 10.764 square feet in a 15 weight percent sulfuric acid electrolyte at 66 degrees C 150 degrees F without an increase in anode to cathode potential of more than 1 volt. The cell containing the anode shall be powered with a constant current power supply for the 30 day test period. The representative sample shall be 125 mm 5 inch in length taken from the lot of wire that is to be used for the anode.

2.1.4 Anode Connecting Cables

Anodes, except for mixed metal oxide and precious metal wire anodes, shall have connecting cables installed at the factory. The Contractor shall submit a certified test report showing that the connecting method has passed a 120-day laboratory test without failure at the place of connection wherein the anode was subjected to maximum recommended current output while immersed in a 3 percent sodium chloride solution. Aluminum anodes connected together by a threaded system shall have water-tight seals and be electrically continuous.

2.2 RECTIFIERS AND ASSOCIATED EQUIPMENT**2.2.1 Rectifier Unit**

Rectifier unit shall consist of a transformer, rectifying elements, transformer tap adjuster, terminal block, one dc output voltmeter, one dc output ammeter, one combination volt-ammeter, one toggle switch for each meter, fuse holders with fuses for each dc circuit, variable resistors, an ac power-supply circuit breaker, lightning arresters for both input and output; all wired and assembled in a weatherproof cabinet. The overall efficiency of the rectifier shall be not less than 65 percent when operated at nameplate rating and shall be capable of supplying continuous full rated output at an ambient temperature of 44 degrees C 112 degrees F in full sunlight with expected life in excess of 10 years.

2.2.1.1 Transformer

Transformer shall conform to UL 506.

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO.10****2.2.1.2 Rectifying Elements**

Rectifying elements shall be silicon diodes connected to provide full-wave rectification. [Silicon diodes shall be protected by selenium surge cells or varistors against over-voltage surges and by current limiting devices against over-current surges.]

2.2.1.3 Meters

Meters shall be accurate to within plus or minus 2 percent of full scale at 27 degrees C 80 degrees F, and shall possess temperature stability above and below 27 degrees C 80 degrees F of at least 1 percent per 5 degrees C 10 degrees F. Separate meters shall be 63.5 mm 2-1/2 inch nominal size or larger.

2.2.1.4 Circuit Breaker

A single-pole, flush-mounted, fully magnetic, properly rated nonterminal type circuit breaker shall be installed in the primary circuit of the rectifier supply transformer.

2.2.1.5 Fuses

Cartridge-type fuses conforming to NEMA FU 1 with suitable fuse holders shall be provided in each leg of the dc circuit.

2.2.1.6 Automatic Cathodic Protection Control

The system shall be capable of maintaining a tank-to-water potential criterion of protection within plus or minus 25 millivolts regardless of changes in water chemistry, temperature, or water level in the tank. Provision shall be made for readily changing the range and limits of the criterion. The controller shall be either housed integrally with the rectifier or in a separate weatherproof cabinet with provisions for locking. The automatic controller shall be a completely solid-state design, and shall be capable of automatically maintaining the tank-to-water potential at minus 900 millivolts with respect to a copper-copper sulfate reference electrode within an accuracy of 25 millivolts. The tank-to-water potential measured and maintained by the controller shall be free of "IR" drop error.

2.2.1.7 Tank To Water Potential Meter

The controller shall be equipped with a calibrated voltmeter having an internal impedance exceeding 1 megohm which shall be so connected to read, from the system reference cell, the tank-to-water potential being maintained by the cathodic protection system. This voltage reading shall be free of "IR" drop error.

2.2.2 Cabinet

Cabinet shall be constructed of not lighter than 16 gauge hot dipped galvanized steel, and shall be provided with a full door. The enclosure shall have oil-resistant gasket. The door shall be hinged and have a hasp that will permit the use of a padlock. The cabinet shall be fitted with screened openings of the proper size to provide for adequate cooling. Holes, conduit knockouts, or threaded hubs of sufficient size and number shall be conveniently located.

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO.11****2.2.2.1 Wiring Diagram**

A complete wiring diagram of the power unit showing both the ac supply and the dc connections to anodes shall be on the inside of the cabinet door. All components shall be shown and labeled.

2.2.2.2 Grounding

Grounding provisions shall comply with NFPA 70 and UL 467 including a ground terminal in the cabinet. The grounding conductor from the terminal to the earth grounding system shall be solid or stranded copper not smaller than No. 6 AWG. The earth grounding system shall consist of one or more rods. Ground rods shall be of a material and size consistent with the system design. Rods shall be driven full length into the earth. Sectional type rods may be used.

2.2.2.3 Resistance to Ground

The resistance to ground shall be measured using the Anode resistance to earth formula. The maximum resistance of driven ground shall not exceed 25 ohms under normally dry conditions. If this resistance cannot be obtained with a single rod, additional rods not less than 1.8 m 6 feet on centers, or if sectional type rods are used, additional sections may be coupled and driven with the first rod. In high-ground-resistance, UL listed chemically charged ground rods may be used. If the resultant resistance exceeds 25 ohms measured not less than 48 hours after rainfall, the Contracting Officer shall be notified immediately. Connections below grade shall be fusion welded. Connections above grade shall be fusion welded or shall use UL 467 approved connectors.

2.2.2.4 Cabinet Paint System

The cabinet and mounting support shall be painted with the manufacturer's standard paint system. [The mounting support for the cabinet shall be painted with the manufacturer's standard painting system.

2.2.3 Wiring

Wiring shall be installed in accordance with NFPA 70 utilizing type TW or RHW or polyethylene insulation. Fittings for conduit and cable work shall conform to UL 514A. Outlets shall be of the threaded hub type with gasketed covers. Conduit shall be securely fastened at 2.4 m 8 foot intervals or less. Splices shall be made in outlet fittings only. Conductors shall be color coded for identification. Cable for anode header and distribution shall be No. 2 AWG stranded copper wire with the appropriate insulation.

2.2.4 Oil Immersed Enclosures (if used)

Enclosures shall be of 3.1 mm 11 gauge steel or heavier, with an accessible drain plug. The oil level shall be clearly marked. The lid shall be hinged and have quick release clamps to secure it in closed position. A stop shall limit the swing of the lid when opened. A compressible, oil resistant, positive sealing gasket shall be provided. The gasket shall return to its original shape upon release of lid pressure. The gasket shall be attached to the tank or lid and joints shall be free of gaps. Base mounting using 102 mm 4 inch high channels shall be provided. Conduits entering the enclosure shall be internally sealed and shall enter or exit above the oil fill line.

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS****PAGE NO.12****2.3 MISCELLANEOUS MATERIALS****2.3.1 Reference Electrodes**

The electrodes shall be copper-copper sulphate type provided with micro-pore diffusion window for water contact and water-tight plug for renewal of copper sulphate crystals and solution. A minimum of four reference electrodes shall be part of this system. Electrodes shall be designed for 15 year life.

2.3.2 Electrical Wire and Associated Materials**2.3.2.1 Anode Connecting Wire**

NOTE: Any pinhole, cut, scratch or other damage to the anode cable exposing bare copper to the electrolyte will result in early failure of the cathodic protection system. For this reason, special, extra heavy insulation is used on anode cable. While it is often expedient to use the same type wire for the cathodic (negative) cable in order to avoid a mix-up in the field, the cathode cable is not subject to anodic failure and lesser insulation can be used. Anode connecting wire shall be No.8 AWG stranded copper wire with type CP high molecular weight polyethylene insulation, 2.8 mm 7/64 inch thick, 600 volt rating. Cable-to-anode contact resistance shall be 0.003 ohms maximum.

2.3.2.2 Anode Header Cable

Cable for anode header and distribution shall be #4 AWG stranded copper wire with type CP high molecular weight polyethylene, 2.8 mm 7/64 inch thick insulation, 600-volt rating. Cable-to-anode contact resistance shall be 0.003 ohms maximum.

2.3.2.3 Reference Electrode Wire

Reference electrode wire shall be stranded copper wire with NFPA 70 type RHW-USE or polyethylene insulation.

2.3.3 Conduit

Rigid galvanized steel conduit and accessories shall conform to UL 6. Nonmetallic conduit shall conform to NEMA TC 2.

2.3.4 Test Boxes and Junction Boxes

Boxes shall be outdoor type conforming to UL 514A.

2.3.5 Polyethylene Insulation

Polyethylene insulation shall comply with the requirements of ASTM D 1248 and of the following types, classes, and grades:

2.3.5.1 High Molecular Weight Polyethylene

High molecular weight polyethylene shall be Type I, Class C, Grade E5.

2.3.5.2 High Density Polyethylene

High density polyethylene shall be Type III, Class C, Grade E3.

2.3.6 Pressure-Sensitive Vinyl Tape

Tape shall conform to UL 510.

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS****PAGE NO.13****PART 3 EXECUTION****3.1 ANODES****3.1.1 Anode Installation**

Anodes shall be suspended to prevent icing damage to anodes and suspending cables. Anodes shall be suspended by means of factory installed connecting wire designed to support the anodes in air (before submergence) without failure of the electrical wire insulation or the electrical conductor. Anodes shall be suspended preventing contact with tank surfaces and shall be hung clear of man-access roof hatches and such items as ladders, heater pipes, and stay rods. Anode hangers shall electrically insulate the anode suspending wire from the tank steel. A handhole having a minimum diameter of 150 mm 6 inches shall be provided in the tank roof for each anode string to permit replacement or inspection of anodes. The Contractor shall certify that the method chosen has been used successfully for similar applications.

3.1.2 Anode Connections

Anodes shall be electrically connected to the positive dc header cable with compression connectors or split bolts, or the header cable may terminate in a junction box for connection with all anode cables. A minimum of two split bolts shall be used for each connection if split bolts are used. Header cable shall be installed on the underside of the roof with electrically insulating hangers and shall enter the tank near the roof line from an externally mounted junction box. External wiring shall be in conduit. All under-roof electric wire splices shall be made above the high water line and sealed water tight using a minimum of two 1/2-lap layers of butyl rubber tape followed by two 1/2-lap layers of plastic tape.

3.2 RECTIFIERS**3.2.1 Rectifier and Control Installation**

Mounting shall be of the wall mounted type

3.2.2 Rectifier Grounding

The grounding system for grounding rectifier cabinets shall have a resistance to earth of not more than 25 ohms as determined by an approved method.

3.3 PERMANENT REFERENCE ELECTRODES**3.3.1 Calibration**

Permanent reference electrodes shall be calibrated against a standard electrode before installation. Calibration shall be done in a test tank containing water with the same composition as the tank to be protected. The permanent electrodes shall measure reference voltage agreeing with that measured by the standard electrode within plus or minus 0.005 volt when the sensing windows of the two electrodes being compared are not more than 4 mm 1/6 inch apart but not touching.

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS
PAGE NO.14****3.3.2 Installation**

Reference electrodes shall be operable under the same icing conditions as the anode system. Installation of permanent reference electrodes shall be made at points in the tank which will monitor minimum and maximum tank-to-water potentials [and as otherwise needed for automatic control system]. Sensing windows of reference electrodes shall be located between 6 mm 1/4 inch and 13 mm 1/2 inch away from the steel surface sensed and shall be fixed in position preventing contact with tank steel.

3.4 CRITERIA OF PROTECTION

Acceptance criteria for determining the adequacy of protection on the internal submerged surfaces of steel water tanks shall be in accordance with NACE RP0398 and as specified below.

3.4.1 Minimum

The criterion of protection shall be a negative voltage of at least minus 850 millivolts as measured between the tank and a saturated copper-copper-sulphate reference electrode. Determination of this voltage shall be made with the cathodic protection system in operation. Voltage drops shall be considered for valid interpretation of this voltage measurement. A minimum of minus 850 millivolts "instant off" potential between the tank surface being tested and the reference cell shall be achieved over 95 percent of the area of the structure. Adequate number of measurements shall be obtained over the entire tank surface to verify and record achievement of minus 850 millivolts "instant off." This potential shall be obtained over 95 percent of the total metallic area without the "instant off" potential exceeding the maximum limit indicated below.

3.4.2 Maximum

In order to mitigate disbonding of the interior coating in the tank, potential between a copper-copper-sulphate reference electrode and the tank at any point shall not be more negative than minus 1.07 volt measured with the electrode located between 6 mm 1/4 inch and 13 mm 1/2 inch and away from the steel surface but not touching it.

3.5 TESTING, ADJUSTING, AND PLACING IN SERVICE**3.5.1 Electrode Potential Measurements**

Upon completion of the installation, the tank shall be filled to maximum working level and with the entire cathodic protection system in operation; electrode potential measurements shall be made using a copper-copper sulphate reference electrode and a potentiometer-voltmeter, or a direct current voltmeter having an input impedance of not less than 10 megohms per volt and a full scale of 10 volts. The locations of these measurements shall be identical to the locations used for baseline potentials. The values obtained and the date, time, and locations of measurements shall be recorded.

3.5.1.1 Tank-to-Water Potential Measurements

The following series of tank-to-water potential measurements with a portable reference electrode placed not more than 13 mm 1/2 inch away from but not touching the tank wall shall be performed:

ATTACHMENT A**SOLICITATION NO. DC060275****ARIZONA
DEPARTMENT OF CORRECTIONS****PAGE NO.15**

- a. On a vertical line midway between two anode strings beginning at a point 300 mm 1 foot below water level and continuing at points 900 mm 3 feet apart until the bottom of the tank is reached.
- b. On a second vertical line midway between two anode strings on the opposite side of the tank from the first vertical line beginning at a point 300 mm 1 foot below water level and continuing at points 900 mm 3 feet apart until the bottom of the tank is reached.
- c. Across the bottom of the tank in a line between the two vertical lines at 900 mm 3 foot intervals.
- d. In at least four places which are closest to anodes.

3.5.1.2 Reference Electrode Calibration

The portable reference electrode used for the test shall be calibrated against the standard electrode specified in paragraph PERMANENT REFERENCE ELECTRODES.

3.5.1.3 Test Measurement Recording

All test measurements and their locations, as well as measurements made with the permanent electrodes simultaneously with the test measurements, shall be recorded.

3.5.2 Adjusting

Final adjustment of the rectifier output current shall be made so that repeated voltage readings taken as specified for testing meet the criteria in paragraph CRITERIA OF PROTECTION.

3.5.3 Placing in Service

After final adjustment, the cathodic protection system shall be placed in service and the condition of the system as left by the Contractor shall be recorded and shall indicate transformer tap settings; voltage readings from reference electrode to tank, readings both horizontal and vertical; automatic control differential setting; ac supply voltage; adjusted dc output voltage; and total protective current.

3.6 TRAINING

The Contractor shall conduct a training course for the operating staff as designated by the Contracting Officer. The training period shall consist of a total of 2-8 hours of normal working time and shall start after the system is functionally complete but prior to final acceptance tests. The field instructions shall cover all of the items contained in the operating and maintenance instructions, as well as demonstrations of routine maintenance operations. The Contracting Officer shall be notified at least 14 days prior to date of proposed starting of the training course.

---End of Section---

ATTACHMENT**ARIZONA
DEPARTMENT OF CORRECTIONS****RULES AND REGULATIONS FOR NON-EMPLOYEES OF
DEPARTMENT OF CORRECTIONS IN ARIZONA STATE PRISON****SOLICITATION NO. DC060275****PAGE NO. 1****POLICY STATEMENT:**

While the institution recognizes the need of non-staff personnel to have in their possession certain personal items, limits are necessary for the security and safe operation of the institution.

PROCEDURES:

1. All persons entering the institution are subject to search prior to entry and while on the grounds of the institution. All non-staff personnel will, at all times, remain in their authorized area under the direction of the project coordinator.
2. Persons are allowed the materials necessary for the performance of their duties.
3. All non-staff personnel may have in their possession the following:
 - A. A wallet with normal contents, ie.,
 1. photos and personal papers.
 2. currency not to exceed \$20.00 (Twenty Dollars). Excess will be reported to the shift commander prior to entry.
 3. no credit cards or checkbooks are allowed.
 - B. Handkerchief and comb.
 - C. Tobacco products and smoking apparatus for normal daily use.
 - D. Keys as necessary (auto and home). Fingernail clipper.
 - E. Confectionary items (gum, candy, etc.)
 - F. Watch and rings.

ATTACHMENT**ARIZONA
DEPARTMENT OF CORRECTIONS****RULES AND REGULATIONS FOR NON-EMPLOYEES OF
DEPARTMENT OF CORRECTIONS IN ARIZONA STATE PRISON****SOLICITATION NO. DC060275****PAGE NO. 2**

4. All persons are prohibited from introducing medication drugs into the institution grounds unless such a medication has been properly prescribed by a licensed physician and is in the original prescription container.
 - A. Medications of a stimulate nature, i.e., Dexedrine, Preludins, Tenuate or any other appetite suppressant or any hypnotic-type drug, are specifically prohibited on institution property. Persons who are taking this type of medication prior to coming to the institution will report this fact to the Shift Commander, prior to reporting to their authorized area.
 - B. Persons taking medications of the tranquilizer class, i.e., Valium, Librium, Miltown or any of the anti-depressant class, i.e., Sinequan, Triavil, Elavil or any mood modifying drug of any type; Pain medications i.e., Percodan, Percocet, hydrocodone (Vicodin), Tylenol with codine, propoxphene, etc., will report this fact to the Shift Commander prior to going to their authorized area. Possession of these types of drugs on prison grounds will be limited to that amount necessary during one eight hour shift.
 - C. Personnel taking any other class of medication i.e., antihistamines, antihypertensives, anticholingerics, etc., are limited in the introduction of only such amount of medication as will be required during the period of one eight hour shift, and the fact will be reported to the Shift Commander.
1. Any deviation from this policy must be cleared with the warden of the unit. Persons violating this policy may subject themselves to eviction from institution property and/or prosecution.

NOTE: If anyone loses or has stolen any personal items in his possession, the institution will attempt to retrieve the items, but cannot guarantee the return thereof nor provide reimbursement.

ATTACHMENT**ARIZONA
DEPARTMENT OF CORRECTIONS****RULES AND REGULATIONS FOR NON-EMPLOYEES OF
DEPARTMENT OF CORRECTIONS IN ARIZONA STATE PRISON****SOLICITATION NO. DC060275****PAGE NO. 3**

The following Arizona Revised Statutes dealing with inmate and non-staff member relationships require your strict adherence at all time during your stay at the Arizona State Department of Corrections.

ARS 31-204 Interest of employee and non-employee in contracts, gifts to or for prisoner: penalty

- A. No non-staff member shall be interested in any contract or purchase made by anyone for or on behalf of the prison, or receive, directly or indirectly, compensation for his services other than prescribed by the administrator of the institution, nor shall he receive any compensation whatever for any act or services he performs for or on behalf of a contractor, or any agent or employee of a contractor.
- B. No non-staff personnel, without permission of the administrator shall make a gift or present to or receive a gift from an inmate, or barter or deal with an inmate.
- C. Any person violating this section shall be discharged from office or service, and every contractor, or employee or agent of a contractor, shall not be permitted to act or serve again as such contractor, agent or employee.

ARS 31-231 Unauthorized communication with prisoners: penalty

A person not authorized by law who, without the permission of the officer in charge of the state prison, communicates with a person imprisoned or detailed therein, or who takes any letter, writing, literature or reading matter to or from a person imprisoned or detained therein, is guilty of a misdemeanor.

Signature

TOTAL P.39